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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,218	10/31/2003	Chyi-Shan Wang	UVD 0307 VA/40815.412	1496

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EXAMINER

KOPEC, MARK T

ART UNIT	PAPER NUMBER
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1751

DATE MAILED: 02/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/698,218

Applicant(s)

WANG ET AL.

Examiner

Mark Kopec

Art Unit

1751

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 1751

This action is responsive to applicant's 1.131/remarks filed 10/18/04. Claims 1-6 are currently pending.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

The Declaration filed on 10/18/04 under 37 CFR 1.131 is sufficient to overcome the Niu et al (US2003/0089890) reference.

Claims 1-6 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Niu et al (6,783,702).

This is the U.S. patent corresponding to Niu et al (US2003/0089890).

Niu et al discloses electrically conductive composite comprising a polyvinylidene fluoride polymer or copolymer and carbon nanotubes is provided. Preferably, carbon nanotubes may be present in the range of about 0.5-20% by weight of the composite. The composites are prepared by dissolving the polymer in a first solvent to form a polymer solution and then adding the carbon nanotubes into the solution. The solution is mixed using an energy source such as a sonicator or a Waring blender. A precipitating component is added to precipitate out a composite comprising the polymer and the nanotubes. The composite is isolated by filtering the solution and drying the composite (Abstract). The reference discloses nanocomposite

Art Unit: 1751

materials produced by the instant "product-by-process" limitations, having the same conductivity ranges and percolation percentages (less than 1% by volume). Claims 1-15 of Niu et al encompass composite materials made by the disclosed process.

"[T]he lack of physical description in a product-by-process claim makes determination of the patentability of the claim more difficult, since in spite of the fact that the claim may recite only process limitations, it is the patentability of the product claimed and not of the recited process steps which must be established. We are therefore of the opinion that when the prior art discloses a product which reasonably appears to be either identical with or only slightly different than a product claimed in a product-by-process claim, a rejection based alternatively on either section 102 or section 103 of the statute is eminently fair and acceptable. As a practical matter, the Patent Office is not equipped to manufacture products by the myriad of processes put before it and then obtain prior art products and make physical comparisons therewith." In re Brown, 459 F.2d 531, 535, 173 USPQ 685, 688 (CCPA 1972).

The reference specifically or inherently meets each of the claimed limitations.

Art Unit: 1751

The Declaration filed on 10/18/04 under 37 CFR 1.131 has been considered but is ineffective to overcome the Niu (6,783,702) reference.

When the reference in question is a noncommonly owned U.S. patent or patent application publication claiming the same invention as applicant and its publication date is less than 1 year prior to the presentation of claims to that invention in the application being examined, applicant's remedy, if any, must be by way of 37 CFR 1.608 instead of 37 CFR 1.131. If the reference is claiming the same invention as the application and its publication date is less than 1 year prior to the presentation of claims to that invention in the application, this fact should be noted in the Office action. The reference can then be overcome only by way of interference. See MPEP §2306-2308. A 37 CFR 1.131 affidavit is ineffective to overcome a United States patent or patent application publication, not only where there is a verbatim correspondence between claims of the application and of the patent, but also where there is no patentable distinction between the respective claims. In re Clark, 457 F.2d 1004, 173 USPQ 359 (CCPA 1972); In re Hidy, 303 F.2d 954, 133 USPQ 650 (CCPA 1962); In re Teague, 254 F.2d 145, 117 USPQ 284 (CCPA 1958); In re Ward, 236 F.2d 428, 111 USPQ 101

Art Unit: 1751

(CCPA 1956); In re Wagenhorst, 62 F.2d 831, 16 USPQ 126 (CCPA 1933).

Claims 1-6 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Nahass et al (5,643,502).

This rejection is maintained for the reasons set forth in the Rejection mailed 7/15/04.

Applicant's remarks regarding this rejection have been fully considered. Specifically, applicant contends that Nahass, which utilizes a shear mixing process, does not inherently meet the claimed conductivity or percolation threshold limitations.

The examiner respectfully disagrees. Nahass specifically teaches that shear is applied until a homogeneous dispersion of fibrils is attained (Col 3, lines 30-34; examples). Additionally, the reference discloses resistivity and percolation values which overlap with the claimed values (Col 3, lines 25-27; lines 35-36; examples). The reference appears to inherently meet each of claimed limitations.

In view of the foregoing, the above claims have failed to patentably distinguish over the applied art.

The remaining references listed on forms 892 have been reviewed by the examiner and are considered to be cumulative to or less material than the prior art references relied upon in the

Art Unit: 1751


rejection above. Niu et al (6,746,627) is the CIP (process claims) of U.S. 6,783,702. Carroll et al US 2002/0161101 discloses solution processing of carbon nanotubes "SWNT, MWNT" (para 0069-0070). The disclosed nanotubes are outside the scope of the instantly claimed "vapor grown carbon nanofibers".

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Kopec whose telephone number is (571) 272-1319. The examiner can normally be reached on Monday - Friday from 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Yogendra Gupta can be reached on (571) 272-1316. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1751

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Mark Kopec  
Primary Examiner  
Art Unit 1751

MK

February 5, 2005